

$$\frac{1}{2\pi} \int_{-\pi}^{\pi} \frac{1}{1 - \frac{1}{2} e^{i\theta}} d\theta = \frac{1}{2\pi} \int_{-\pi}^{\pi} \frac{1}{1 - \frac{1}{2} (\cos \theta + i \sin \theta)} d\theta = \frac{1}{2\pi} \int_{-\pi}^{\pi} \frac{1}{1 - \frac{1}{2} \cos \theta - \frac{i}{2} \sin \theta} d\theta$$

5

10

20